

REMARKS

Claims 1-20 are pending. By this Amendment, claims 1 and 8 are amended and claim 20 is added. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Applicants respectfully submit that the rejection of claim 16 fails to present a *prima facie* case of obviousness. In particular, Applicants respectfully note that claim 8 was rejected under 35 U.S.C. §103(a) over Nakagawa et al. (U.S. Patent 6,429,035) or Japanese Patent 11-145230 (JP '230) in view of Okada et al. (U.S. Patent 6,066,872). Claim 16, which depends from claim 8, was rejected under 35 U.S.C. §103(a) over Nakagawa et al. over JP '230 in view of Padovani et al. (U.S. Patent 4,213,937). The rejection of claim 16 thus fails to present a *prima facie* case of obviousness as the combination of Nakagawa et al. or JP 230 in view of Padovani et al. fails to include the features of Okada et al., which the Examiner has determined to be necessary to present a *prima facie* case of obviousness against claim 8, from which claim 16 depends.

Claim 8 was rejected under 35 U.S.C. §112, second paragraph. Claim 8 has been amended in accordance with the suggestion of the Office Action. Reconsideration and withdrawal of the rejection claim 8 are respectfully requested.

Claims 1-7, 17 and 18 are rejected under 35 U.S.C. §102(e) over Nakagawa et al. The rejection is respectfully traversed.

Claim 1 recites an evaluation method for polycrystalline silicon which is used as a material for pulling single crystal silicon, the method including immersing a predetermined amount of the polycrystalline silicon in a predetermined amount of an agent contained in a vessel which agent is capable of dissolving the polycrystalline silicon, and placing a measuring device in the agent having a polycrystalline silicon dissolved therein to count the number of foreign particles disbursed in the agent.

Nakagawa et al. disclose a method of a growing silicon crystal in a liquid phase in which non-doped polycrystalline silicon is brought into contact with heated liquid indium and dissolved into the liquid indium until it was saturated to prepare a melt. The melt is then gradually cooled until supersaturated. When the melt is cooled to 980°C, a substrate of non-doped polycrystalline silicon is brought into contact with the melt, whereby a silicon crystal having a thickness of 10µm was epitaxially grown on the substrate. The specific resistance of the silicon crystal is measured by a four-probe method. (See column 4, lines 43-55.) According to similar experiment that was carried out by Nakagawa et al., the impurities

contained in the grown silicon layer were determined by secondary ion mass spectrometry.
(See column 4, lines 59-65.)

There is no disclosure or suggestion by Nakagawa et al. of placing a measuring device in an agent having polycrystalline silicon dissolved therein to count the number of foreign particles disbursed in the agent, as recited in claim 1. As discussed above, Nakagawa et al. disclosed determining the impurities in a silicon layer epitaxially grown on substrate. Nakagawa et al. thus cannot anticipate or render obvious claim 1.

Claims 2-7, 17 and 18 recite additional features of the invention and are allowable for the same reasons discussed above with respect to claim and for the additional features recited therein.

Reconsideration and withdrawal of the rejection of claims 1-7, 17 and 18 under 35 U.S.C. §102(e) over Nakagawa are respectfully requested.

Claims 1-7 and 17 and 19 were rejected under 35 U.S.C. §102(b) over JP '230. The rejection is respectfully traversed.

JP '230 discloses a polycrystalline silicon film analysis method in which a holder rod 12 supplies fluoric nitride acid obtained as a mixture of hydrofluoric acid and nitric acid to a polycrystalline silicon film formed on a wafer. The impurity element contained in the silicon film is dissolved by fluoro nitric acid when the wafer is rotated. The fluoro nitric acid is evaporated and the impurity element in the silicon film is analyzed by a total reflection fluorescent X-ray process.

There is no disclosure or suggestion by JP '230 of immersing a predetermined amount of polycrystalline silicon in a predetermined amount of an agent contained in a vessel, as recited in claim 1. As discussed above, JP '230 teaches contacting hydrofluoric and nitric acid with a surface of a polycrystalline silicon film formed on a wafer by the holder rod 12 by rotating the wafer. There is no disclosure or suggestion by JP '230 of immersing and dissolving polycrystalline silicon in a vessel, as recited in claim 1. Thus, JP '230 cannot anticipate or render obvious claim 1.

Claims 2-7 and 17-19 recite additional features of the invention and are allowable for the same reasons discussed above with respect to claim 1 and for the additional recited therein.

Reconsideration and withdrawal of the rejection of claims 1-7 and 17-19 under 35 U.S.C. §102(b) over JP '230 are respectfully requested.

Claim 8 was rejected under 35 U.S.C. §103(a) over Nakagawa et al. or JP '230 in view of Okada et al. and claims 9-16 were rejected under 35 U.S.C. §103(a) over Nakagawa or JP'230 in view Padovani et al. The rejections are respectfully traversed.

Claims 8-16 recite additional features of the invention and are allowable for the same reasons discussed above with respect to claim 1 and for the additional features recited therein. In addition, it is respectfully submitted that Okada et al. and Padovani et al. fail to cure the deficiencies of claim 1 with respect to Nakagawa et al. and JP '230. Accordingly, even assuming it would have been obvious to combine the references, the combination would not have resulted in the inventions of claim 8-16.

Reconsideration and withdrawal of the rejection of claims 8-16 under 35 U.S.C. §103(a) are respectfully requested.

In view of the above amendments and remarks, Applicants respectfully submit that all of the claims are allowable and that the entire application is in condition for allowance.

Should the Examiner believe that anything further is desirable to place the application in better condition for allowance, the examiner is invited to contact the undersigned at the telephone number listed.

Respectfully submitted,
Pillsbury Winthrop LLP

By: _____


John P. Darling

Reg. No.: 44,482

Tel. No.: (703) 905-2045

JPD\tmt

P.O. Box 10500
McLean, VA 22102

Phone: (703) 905-2000
Fax: (703) 905-2500